

## REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed October 26, 2005 (Paper No./Date 10182005) filed with a petition for a one month extension. Upon entry of this Response, claims 1-34 and 48-58 remain pending in the application. Claims 1-34 have been amended, and claims 48-58 have been added. Claims 35-47 have been canceled herein. Applicant expressly reserves the right to pursue the subject matter of canceled claims 35-47 in a divisional application. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

### I. Summary of Examiner's Interview

Applicants appreciate the time Examiner spent with Applicants' attorney, Minh Nguyen, in a telephone interview on January 24, 2006. The discussion involved the rejection under 35 U.S.C. §112. No agreement was reached.

### II. Claim Rejections Under 35 U.S.C. §112

Claims 1-34 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Applicants have amended the claims to overcome the rejection and respectfully request that the rejection be withdrawn.

### III. Claim Rejections Under 35 U.S.C. §102

Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,009,136 to *Loftis, et al.* Claim 18 stands rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,361,281 to *Porowski*. A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983).

A. Claim 1

Claim 1, as amended, recites:

1. A container for storing or transporting spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel assemblies, each tube having four sidewalls and four corners defining a rectangular cross section; and

an attachment means for attaching respective pairs of a plurality of corners of the tubes to each other, *at least one corner of a first one of the tubes engaging another corner of a second one of the tubes, each engaged corner of the first and second ones of the tubes being formed from an intersection of a first sidewall and a second sidewall, the first and second side walls being normal to each other, the first sidewall of the first one of the tubes being substantially aligned with the first sidewall of the second one of the tubes, and the second sidewall of the first one of the tubes being substantially aligned with the second sidewall of the second one of the tubes.*

(Emphasis Added)

The Office Action alleges that “[*Loftis* discloses] a storage rack comprising elongated tubes with rectangular cross sections for storing nuclear fuel (see Abstract). These tubes are aligned and attached at the corners so that they form an alternating pattern (see Fig. 1).”

However, Applicants respectfully submit that *Loftis* fails to disclose the above-emphasized features of claim 1. Hence, Applicants respectfully request that claim 1 be allowed and the rejection be withdrawn.

B. Claim 18

Claim 18, as amended, recites:

18. A container for storing spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel assemblies, each of the tubes having a plurality of recesses;

*a plurality of first rods being mounted in respective ones of the recesses;* and

wherein *at least one first rod mounted on a respective one of the tubes is attached to at least one of the first rods mounted on at least one second one of the tubes*, thereby linking the respective one of the tubes and the at least one second one of the tubes together.

(Emphasis Added)

The Office Action alleges that “*Porowski* discloses a storage rack for spent nuclear fuel comprising a plurality of tubes having recesses (Fig. 7, article 44) and corresponding fittings (Fig. 7, article 46) that are equivalent to the claimed first rods. These recesses and fittings are attached to each other, linking the tubes together.” In fact, *Porowski* discloses as follows:

“As seen in FIGS. 7 and 8, every other corner 38 of panels 32-34 has a plurality of **welding slots 44** spaced vertically thereon for welding adjacent panels together. Preferably, welding slots 44 are approximately a 1/2" long with approximately six or more welding slots 44 spaced along the length of alternating corners 38. The edges 39 of each of the panels 31-34 are provided with **welding cutouts 46** for welding ends of the panels to other panels at their corners or edges as necessary. “

(Emphasis Added, Col. 5, lines 19-28)

It appears that *Porowski* discloses welding slots 44 and welding cutouts 46 as opposed to rods and recesses that are claimed in claim 18. Applicants respectfully submit that *Porowski* fails to disclose the above-emphasized features of claim 18. Hence, Applicants respectfully request that claim 18 be allowed and the rejection be withdrawn.

#### IV. Claim Rejections Under 35 U.S.C. §103

Claims 2-17 and 19-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Loftis* and *Porowski* as largely applied to claims 1 and 18, and further in view of U.S. Patent No. 4,088,897 to *Soot*. See, e.g., *In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

##### A. Claim 8

Claim 8, as amended, recites:

8. A container for storing or transporting spent nuclear fuel, the container comprising:
  - a plurality of tubes that receive spent nuclear fuel;
  - a plurality of first rods being mounted at a point where each**

*respective one of the tubes abuts against another one of the tubes, each of said first rods having an opening;  
at least one pin;  
wherein the openings of respective ones of the first rods mounted on a first one of the tubes are substantially aligned with the openings of respective ones of the first rods mounted on a second one of the tubes; and  
the at least one pin extends through the aligned ones of the openings of the first rods, thereby linking respective ones of the tubes together.*

(Emphasis Added)

The Office Action admits that “[*Loftis*] does not teach that these rod-like projections may be mounted in recesses on an abutting tube.” In this regard, the Office Action uses *Porowski* and alleges that “*Porowski* [teaches] projection-recess coupling as a means of attachment, and discloses as conventional the use of pins comprised by head and body portions (Fig. 14) as an attachment means in the nuclear art. The hollow rod-pin combination recited in the current claims amounts to no more than a description of the commonplace hinge, having a barrel comprised by two knuckles, each knuckle extending from a separate leaf, where the leaf consists of the sidewall of one of the adjacent tubes.”

In fact, Fig. 14 of *Porowski* illustrates an adjusted coupling holding member 106. *Porowski* discloses in Col. 6, lines 49-56 the following:

“Top fixture plate 100 basically includes four holes 110 for receiving the upper ends of tie rods 104 therethrough, and a plurality of threaded holes 112 for threadedly receiving holding members 106 therein. One of the holes 110 are located at each of the corners of top fixture plate 100, while holes 112 are equally spaced apart in a pattern for engaging corners 38 and edges 39 of panels 31-34.”

It appears that *Porowski* discloses welding slots 44 and welding cutouts 46 as opposed to rods and recesses that are claimed in claim 8. Because *Loftis* and *Porowski* fail to disclose, teach, or suggest the above-emphasized features of claim 8, Applicants respectfully submit that the combination of *Loftis* and *Porowski* also fails to disclose, teach, or suggest each and every element of claim 8. Thus, a *prima facie* case of obviousness is not established based on *Loftis* and *Porowski*. Consequently, for at least this reason, among others, Applicants respectfully request that claim 8 be allowed and the rejection be withdrawn.

B. Claim 28

Claim 28, as amended, recite:

28. A container for storing or transporting spent nuclear fuel, the container comprising:

a plurality of tubes that receive spent nuclear fuel rods, each of the tubes having four sidewalls and four corners defining a rectangular cross section, ***each of the tubes having a plurality of recesses and a plurality of flat load bearing surfaces along at least one corner;***

***a plurality of first rods being mounted in the recesses of the tubes, wherein respective pairs of the first rods are attached to each other, thereby linking the tubes together;*** and

***wherein the tubes are linked to each other at the corners such that the flat load bearing surfaces on respective pairs of the tubes abut against each other.***

(Emphasis Added)

The Office Action admits that “[*Loftis*] does not teach that these rod-like projections may be mounted in recesses on an abutting tube.” In this regard, the Office Action uses *Porowski* and alleges that “[*Porowski*] [teaches] projection-recess coupling as a means of attachment, and discloses as conventional the use of pins comprised by head and body portions (Fig. 14) as an attachment means in the nuclear art. The hollow rod-pin combination recited in the current claims amounts to no more than a description of the commonplace hinge, having a barrel comprised by two knuckles, each knuckles extending from a separate leaf, where the leaf consists of the sidewall of one of the adjacent tubes.” In addition, the Office Action alleges that *Soot* discloses “the use of flattened, low-bearing corners.”

Regarding *Porowski*, Fig. 14 of *Porowski* illustrates an adjusted coupling holding member 106. *Porowski* discloses in Col. 6, lines 49-56 the following:

“Top fixture plate 100 basically includes four holes 110 for receiving the upper ends of tie rods 104 therethrough, and a plurality of threaded holes 112 for threadedly receiving holding members 106 therein. One of the holes 110 are located at each of the corners of top fixture plate 100, while holes 112 are equally spaced apart in a pattern for engaging corners 38 and edges 39 of panels 31-34.”

It appears that *Porowski* discloses welding slots 44 and welding cutouts 46 as opposed to rods and recesses that are claimed in claim 28. Applicants respectfully submit that *Porowski* fails to disclose the above-emphasized feature of claim 28.

Regarding *Soot*, it appears from Fig. 3 of *Soot* that the corners of the tubes are not flattened, low-bearing corners as alleged in the Office Action, but instead are circular or rounded corners. In addition, the rounded corners do not engage each other as recited in claim 28.

Because *Loftis*, *Porowski*, and *Soot* fail to disclose, teach, or suggest the above-emphasized features of claim 28, Applicants respectfully submit that the combination of *Loftis*, *Porowski*, and *Soot* also fails to disclose, teach, or suggest each and every element of claim 28. Thus, a *prima facie* case of obviousness is not established based on *Loftis*, *Porowski*, and *Soot*. Consequently, for at least this reason, among others, Applicants respectfully request that claim 28 be allowed and the rejection be withdrawn.

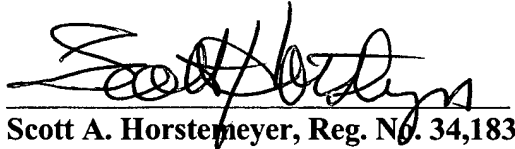
In addition, claims 2-7 depend from claim 1, claims 9-17 depend from claim 8, claims 19-27 depend from claim 18, and claim 29-34 depend from claim 28. Accordingly Applicant asserts that the cited references fail to show or suggest each of the elements of claims 2-7, 9-17, 19-27, and 29-34 for the same reasons described above with respect to claims 1, 8, 18, and 28. Thus, Applicant requests that the rejection of claims 2-7, 9-17, 19-27, and 29-34 be withdrawn.

In addition, claims 48-58 have been added herein to further claim various embodiments of the present invention. Favorable action with respect to claims 48-58 is respectfully requested.

## CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,



Scott A. Horstemeyer, Reg. No. 34,183

**THOMAS, KAYDEN,  
HORSTEMEYER & RISLEY, L.L.P.**  
Suite 1750  
100 Galleria Parkway N.W.  
Atlanta, Georgia 30339  
(770) 933-9500